

Factor out the common monomial factor:

11. $16x^2 + 12x$

12. $42x^2y - 14xy^2$

13. $56x^2 - 8$

Factor completely:

14. $3x^2 - 9x - 12$

15. $2x^3 - 98x$

16. $2x^3y + 4x^2y^2$

Simplify:

17. $\frac{3x^3 - 12x}{x^2 + 7x + 10} \cdot \frac{x^2 + 4x - 5}{6x^2 - 12x}$

18. $\frac{2x^3 - x^2 - 3x}{2x^4 + 3x^3 + x^2} \cdot \frac{2x+1}{3}$

19. Find the exponential equation through $(-2, 1.2)$ and $(3, 19.2)$

Solve:

20. $3 \log(x+4) = 6$

21. $\log_9 x + \log_9(x-8) = 1$